Claim

[1] An expression vector having a polynucleotide which hybridizes with a complementary chain of the polynucleotide represented by SEQ ID NO:8 under a stringent condition and also encodes a polypeptide that has the activity of hydroxylating the 24-position of an oleanane type triterpene.

[2] The expression vector described in claim 1, wherein the polynucleotide is the polynucleotide represented by SEQ ID NO:8.

[3] A transformant in which a host is transformed with the expression vector described in claim 1 or 2.

[4] The transformant described in claim 3, wherein the host is a microorganism.

[5] The transformant described in claim 4, wherein the microorganism is a yeast.

[6] An expression vector having: a polynucleotide which hybridizes with a complementary chain of the polynucleotide represented by SEQ ID NO:8 under a stringent condition and also encodes a polypeptide that has the activity of hydroxylating the 24-position of an oleanane type triterpene; and a β-amyrin synthase gene.

[7] The expression vector described in claim 6, wherein the polynucleotide is the polynucleotide represented by SEQ ID NO:8.

[8] A transformant in which a host is transformed with the expression vector described in claim 6 or 7.

[9] The transformant described in claim 8, wherein the host is a microorganism.

[10] The transformant described in claim 9, wherein the microorganism is a yeast.

[11] A lanosterol synthase deficient yeast mutant strain deposited as FERM BP-10201.

[12] A method for producing a polypeptide that has the activity of hydroxylating the 24-position of an oleanane type triterpene, which comprises: a step of culturing the transformant described in any one of claims 3 to 5; and thereby producing the polypeptide described in claim 1.

[13] A method for producing: a polypeptide that has the activity of hydroxylating the 24-position of an oleanane type triterpene; and a β-amyrin synthase, which comprises culturing the transformant described in any one of claims 8 to 10,

1) a step for producing the polypeptide described in claim 3 and

2) a step for producing the β-amyrin synthase.

[14] A method for producing an oleanane type triterpene in which the 24-position is hydroxylated, which comprises a step of allowing the transformant described

in any one of claims 3 to 5 to act upon an oleanane type triterpene.

[15] A method for producing an oleanane type triterpene in which the 24-position is hydroxylated, by culturing the transformant described in any one of claims 8 to 10.

[16] A method for producing an oleanane type triterpene in which the 24-position is hydroxylated, by culturing the yeast mutant strain described in claim 11.